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Card 9/9

YEFIMOV, I.Ye., inzhener.

Pamphlets on the experience of progressive mines. Mekh.trud. rab. 9 no.10:47 O '55. (MLRA 9:1)
(Bibliography--Coal mines and mining)

GRODNEV, Igor' Izmaylovich; LAKERNIK, Rafail Moiseyevich; SHARLE, David Leonidovich; YEFIMOV, I.Ye., redaktor; LINKOV, A.V., redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor

[Fundamentals of the theory and the production of communication cables] Osnovy teorii i proizvodstvo kabelei sviazi. Moskva, Gos. energ. izd-vo, 1956. 480 p. (MLRA 9:11)
(Electric cables)

YEFIMOV, I.Ye.

GRODNEV, I.I.; YEFIMOV, I.Ya.; MARIMONT, L.B.; SHIRYAYEV, N.P., inzhener-kapitan, redaktor; STREL'NIKOVA, M.A., tekhnicheskiy redaktor

[Communication lines; approved by the chief signal office as a textbook for military schools of communication] Linii sviazi; odobreno nachal'nikom voisk sviazi v kachestve uchebnika dlia voennykh uchilishch sviazi. Moskva, Voen. izd-vo M-va obor. SSSR, 1956. 503 p. (MLRA 10:6)
(Telephone lines) (Telegraph lines)

YEFIMOV, I.Ye.

For a determined introduction of the advanced experience of miner innovators. Mekh. trud. rab. 10 no.8:45-47 Ag '56. (MLRA 9:10)

(Coal mining machinery)

YEFIMOV, I.Ye.

Nonlinear properties of bimetallic conductors containing ferromagnetic material. Elektrosviaz' 10 no.12:57-66 D '56. (MLRA 9:12)
(Electric conductors)

YEFIMOV, I.Ye.

Determining the complex magnetic induction of the ferromagnetic layer in bimetal wires. Sbor. nauch. rab. po prov. sviazi no.6: 65-76 '57. (MIRA 11:5)

(Magnetic induction) (Electric wire)

YEFIMOV, I.Ye.; LAKERNIK, R.M.

Ferromagnetic coating of conductors in high-frequency communication cables. Sbor. nauch. rab. po prov. sviazi no.6:77-105 '57. (MIRA 11:5)
(Electric cables)

YEFIMOV, I.Ye.

Protection from nonlinear distortions due to combination circuit components made of bimetallic wires. Elektrosviaz' 11 no.9:50-57 S '57. (MIRA 10:11)

(Electric circuits)

KULESHOV, Vasiliy Nikolayevich; YEFIMOV, I.Ye., otv.red.; KOKOSOV, L.V., red.; SHEFER, G.I., tekhn.red.

[Long-distance communication lines] Mezhdugorodnye kabel'nye linii sviazi. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1959. 195 p. (MIRA 13:5)
(Electric lines) (Telecommunications)

PHASE I BOOK EXPLOITATION SOV/3858

Yefimov, I.Ye., M.A. Klimov, R.M. Lakernik, and D.L. Sharle

Konstruktivnyye i elektricheskiye kharakteristiki kabeley svyazi (Design and Electrical Characteristics of Communication Cables) Moscow, Svyaz'izdat, 1959. 541 p. 7,500 copies printed.

Resp. Ed.: P.A. Frolov; Ed.: G.V. Bogacheva; Tech. Ed.: S.F. Karabilova.

PURPOSE: This monograph is for students specializing in the field of communication cables and for personnel of communication centers and the cable industry who wish to improve their qualifications.

COVERAGE: The monograph contains the fundamentals of design and electrical characteristics of Soviet and non-Soviet communication and radio-frequency cables, the properties of their materials, and methods of calculating their design. I.E. Yefimov wrote Ch. II (except Section 8), VI, XIV (together with R.M. Lakernik), and XV; M.A. Klimov wrote Ch. VII, IX (together with D.L. Sharle), X, XIII, and Section 8 of Ch. II.; R.M. Lakernik wrote Ch. IV, V,

Card 1/7

XI, XII, and XIV (together with I.E. Yefimov); D.L. Sharle wrote Ch. I, III, VIII, and IX (together with M.A. Klimov). The authors thank P.A. Frolov. There are 157 references: 140 Soviet, 9 English, 7 German, and 1 Swedish.

TABLE OF CONTENTS:

SOV/106-59-3-12/12

AUTHOR: Yefimov, I.Ye.

TITLE: The Calculation of the Parameters of Cables with Bi-metallic Cores (K raschetu parametrov kabeley s bimetallicheskimi zhilami)

PERIODICAL: Elektrosvyaz', 1959, Nr 3, pp 91-96 (USSR)

ABSTRACT: At a frequency of 260 kc/s the effective useful depth of the surface layer of copper is only 0.13 mm while at a frequency of 800 kc/s this has fallen to 0.075 mm. Consequently by using, for example, a copper-plated steel conductor with a core diameter of 1.2 mm, it is possible to economise on up to 60-75% of the copper. Formulae for the resistance and inductance are taken from Ref 1 and 2 and given here as Eq 1 and 2. In these formulae k' and k" represent skin effect coefficients while F_1 and F_2 represent proximity effect. The latter two coefficients are given in terms of another constant A in Eq (10) and (11); these supplementary coefficients are tabulated in Tables 1 to 4. The particular example considered is of a wire with a steel core of diameter 0.9 mm and a copper covering 0.15 mm thick. The frequency dependence of resistance

Card 1/2

The Calculation of the Parameters of Cables with Bi-metallic Cores

and conductance of such a cable with styroflex insulation and spiral quad structure is shown in Fig 2. The corresponding damping and phase coefficients are given in Fig 3. There are 3 figures, 4 tables and 2 Soviet references.

SUBMITTED: 24th May 1958

USCOMM-DC-61057

AKUL'SHIN, Pavel Kuz'mich; YEVLANOV, Sergey Nikolayevich; YEFIMOV, I.Ye., doktor tekhn.nauk, otv.red.; PETROVA, V.Ye., red.; MARKOCH, K.G., tekhn.red.

[Fundamentals of electric communications] Osnovy teorii elektricheskoi sviazi. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio. Pt.2. [Electric line systems with distributed constants] Lineinye sistemy s raspredelennymi postoiannymi. 1960. 221 p. (Electric lines) (MIRA 13:9)

YEFIMOV, Ivan Yefimovich; KOSHCHEYEV, I.A., prof., doktor tekhn.nauk, otv.red.; BOGACHEVA, G.V., red.; SHEFER, G.I., tekhn.red.

[Multilayer communication lines] Mnogosloinye provoda sviazi. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1961. 143 p. (MIRA 14:6)
(Electric lines) (Coaxial cables)

YEFIMOV, I.Ye.; GRODNEV, I.I., doktor tekhn. nauk, prof., retsenzent; SUSHKEVICH, V.I., kand. tekhn. nauk, retsenzent; SRETENSKIY, V.N., retsenzent; GOLOVANOVA, L.V., red.

[Radiofrequency transmission lines] Radiochastotnye linii peredachi. Moskva, Sovetskoe radio, 1964. 599 p. (MIRA 17:5)

ACCESSION NR AM4045081 BOOK EXPLOITATION

YEfimov, I. YE.

Radio-frequency transmission lines (Radio-chastotny*ye linii peredachi), Moscow, Izd-vo "Sovet*skoye radio", 1964, 599 p. illus., bibliog., fold diagr., tables. 10,300 copies printed.

TOPIC TAGS: radio-frequency transmission line, waveguide, radio-frequency cable

PURPOSE AND COVERAGE: This book is an aid on radio-frequency transmission lines used in various types of radio electronic equipment. Basic characteristics of radio-frequency cables and waveguides and engineering methods of calculating their parameters are included. The basic methods of measuring and testing radio-frequency cables are examined. The book is of interest to [illegible] engineers, and students in higher education institutions with a specialty in radio engineering

TABLE OF CONTENTS [abridged]:

Foreword -- 3

Card 1/2

L 16484-65
ACCESSION NR AM4045081

SUB CODE:EC SUBMITTED: 11Feb64 NR REF SOV: 078

OTHER: 051

Card 2/2

SADOVSKIY, Akim Samoylovich; YEFIMOV, I.Ye., otvetstvennyy redaktor; KOKOSOV, L.V., redaktor; SOKOLOVA, R.Ya., tekhnicheskiy redaktor.

[Collection of problems on the course "Theory of electric communications."] Sbornik zadach po kursu "Teoriia elektricheskoi sviazi." Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1954. 341 p. (MLRA 8:3)
(Telecommunications—Problems, exercises etc.)

YEFIMOV, K.

Approaching a dream. V pomoshch' znan. 40 no.8:39-40 Ag '64.
(MIRA 17:11)

1. Vneshtatnyy instruktor Saratovskogo promyshlennogo oblastnogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza.

BYKHOVSKIY, Izrail' Adol'fovich. Prinimali uchastiye: AL'KIMOVICH, A.V., inzh.; YEFIMOV, K.A.; KRASIN, A.K., prof., doktor tekhn. nauk, retsenzent; ZNAMEROVSKIY, B.P., kand. tekhn. nauk, retsenzent; KUDINOV, N.N., inzh., retsenzent; MISHKEVICH, G.I., red.; SHISHKOVA, L.M., tekhn. red.

[Atomic ships] Atomnye suda. Pod red. N.N.Kudinova. Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshl., 1961. 310 p. (MIRA 14:9)
(Atomic ships)

YANOV, E.N.; PREDTECHENSKIY, N.N.; POLEVAYA, N.I.; MURINA, G.A.; MIRKINA, S.L.; ISKANDEROVA, A.D.; YEFIMOV, K.P.; CHEN' YUY-VEY [Ch'ên Yü-wei]; TITOV, N.Ye.; PANTELEYEV, A.I.; KOCHEGURA, V.V.; GIRFANOVA, O.M.; ZUYEV, A.V.; NIKOL'SKIY, Yu.I.; BURE, G.N.

Problems of the methods of geological investigations. [Trudy] VSEGEI 92:91-98 '63. (MIRA 17:4)

ACC NR: AP6029950 SOURCE CODE: UR/0413/66/000/015/0127/0128

INVENTOR: Vzorov, M. I.; Romanov, A. S.; Yefimov, K. P.; Terenin, A. P.

ORG: none

TITLE: Actuating valve. Class 47, No. 184575

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 127-128

TOPIC TAGS: valve, actuating valve, aircraft cabin environment, aircraft cabin equipment, pressure regulator, hermetic seal

ABSTRACT: An attempt has been made to simplify the design and increase the reliability of an actuating valve for hermetic aircraft cabin previously described in Author Certificate No. 170256. In the improved valve, the pressure increment chamber of the air speed transmitter has a rigid center in the spring-loaded separating membrane which is connected with the rigid center of a 'limp' membrane;

UDC: 621.646
629.13.01/06

Card 1/2

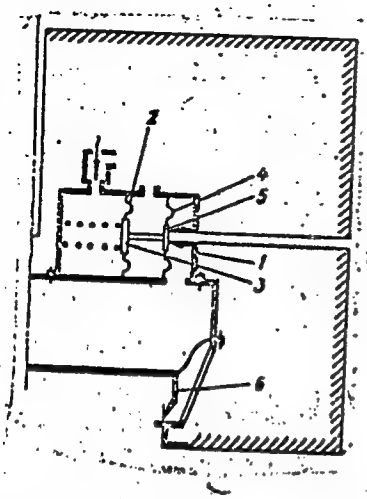

Fig. 1. Actuating valve

1 - Air speed transmitter; 2 - spring-loaded membrane; 3 - rigid center of the spring-loaded membrane; 4 - 'limp' membrane; 5 - rigid center of the 'limp' membrane; 6 - main valve.

this junction forms a venting valve connecting the cavity of the main valve with the atmosphere (see Fig. 1). Orig. art. has: 1 figure.

SUB CODE: 21/ SUBM DATE: 22Dec64

Card 2/2

MIRKINA, S.L.; ISKANDEROVA, A.D.; YEFIMOV, K.P.

Comparing data on the lead and argon method of absolute age determination. Sov.geol. 5 no.9:122-126 S '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.
(Geological time)

ACC NR: AP7005674 SOURCE CODE: UR/0413/67/000/002/0144/0144

INVENTOR: Yefimov, K. P.; Romanov, A. S.; Terenin, A. P.; Chizhikov, Yu. V.

ORG: none

TITLE: Device for synchronizing the operation of the exhaust valves of a pressure regulating system for pressurized cabins. Class 47, 190747

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 144

TOPIC TAGS: pressure regulator, aircraft cabin equipment, valve, cabin pressurization, spacecraft carried equipment

ABSTRACT: The proposed synchronizing device consists of a housing whose cavity contains spring-loaded elastic membranes with by-pass valves fastened to them. These valves shut off the main ducts connecting the exhaust valve

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629.13.01/06

Card 1/3

ACC NR: AP7005674

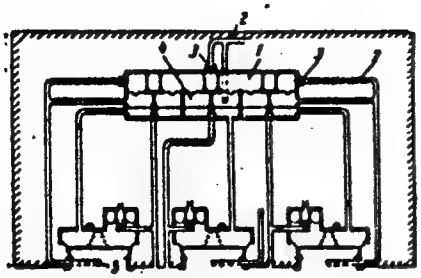
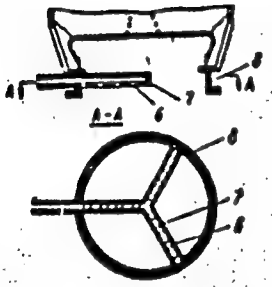


Fig. 1. Synchronization device

1 - Cavity above membrane;
2 - feed lines; 3 - check valves;
4 - chambers under membrane;
5 - transducer; 6 - openings;
7 - stiffeners; 8 - housing.



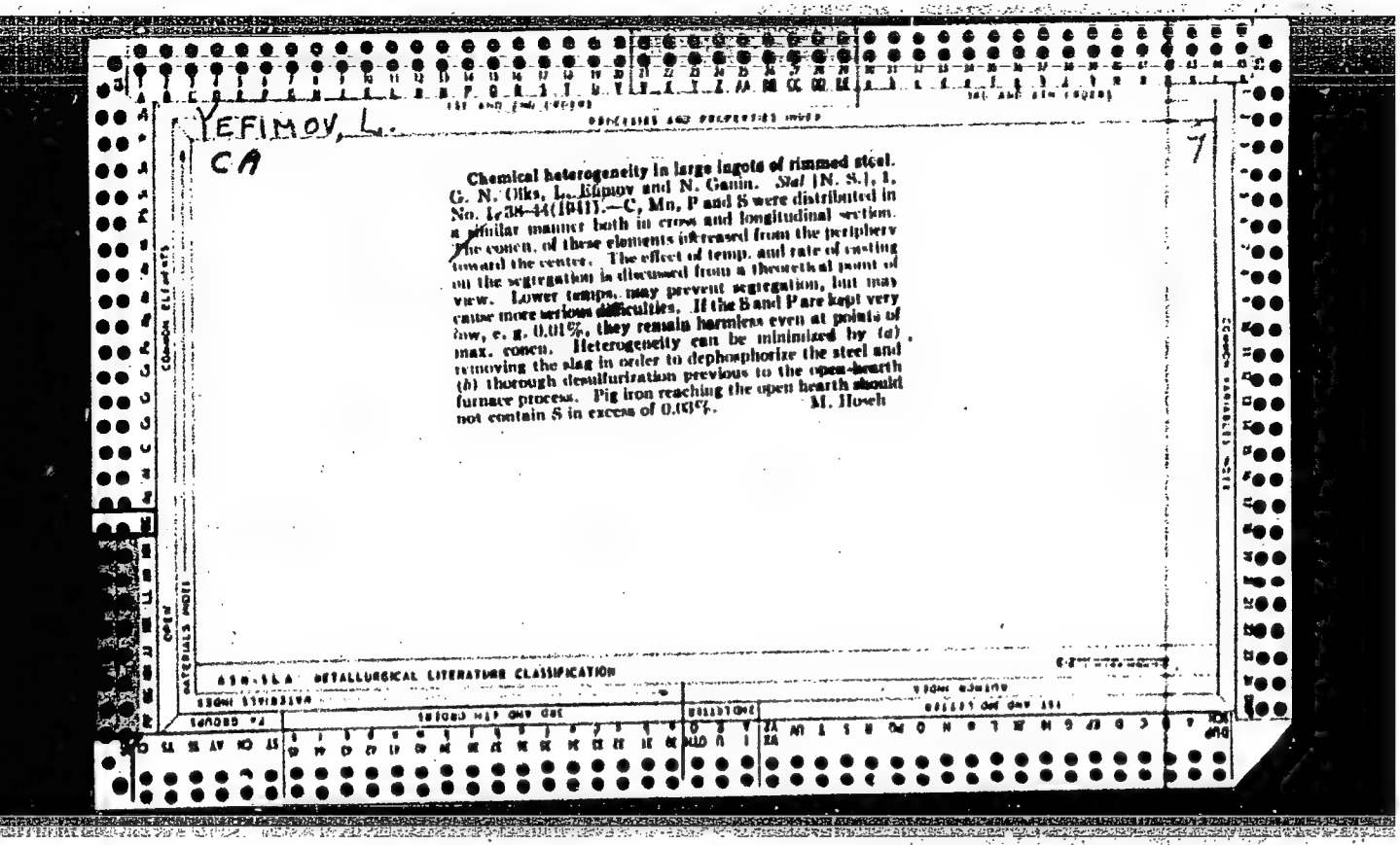
Card 2/3

ACC NR: AP7005674

cavities under the membrane to a vent to the atmosphere. To ensure synchronous operation of three or more exhaust valves, the cavity above the membrane in the device is connected by feedlines containing check valves to the corresponding chambers under the membrane and to air flow-rate transducers (see Fig. 1). Orig. art. has: 1 figure. [TN]

SUB CODE: 01,13,14/SUBM DATE: 28Dec65/ ATD PRESS: 5117

Card 3/3



YEFIMOV, L.

CA

7

Chemical heterogeneity in large ingots of rimmed steel. G. N. Oiks, L. Efimov and N. Gamin. *Stal* [N. S.], 1, No. 1, 38–44 (1941).—C, Mn, P and S were distributed in a similar manner both in cross and longitudinal section. The concn. of these elements increased from the periphery toward the center. The effect of temp. and rate of cooling on the segregation is discussed from a theoretical point of view. Lower temps. may prevent segregation, but may cause more serious difficulties. If the S and P are kept very low, e. g. 0.01%, they remain harmless even at points of max. concn. Heterogeneity can be minimized by (a) removing the slag in order to dephosphorize the steel and (b) thorough desulfurization previous to the open-hearth furnace process. Pig iron reaching the open hearth should not contain S in excess of 0.05%. M. Hoch

A30-51A METALLURGICAL LITERATURE CLASSIFICATION

PERFAN'YAK, P.; YEFIMOV, L.; BLYUMBERG, K.

Books on the analysis of the management of enterprises. Den. i kred. 12 no.6:52-59 D '54. (MIRA 8:4)
(Industrial management)

BATURIN, S.; YEFIMOV, L.

Analytical work of the State Bank branches. Den. i kred. 20 no.4:39-48 Ap '62. (MIRA 15:4)
(Banks and banking) (Auditing) (Industrial management)

YEFIMOV, L., inzh.

The final goal, quality. Grazhd. av. 21 no.10:4-5 O '64.
(MIRA 18:3)

MIKHEYEV, Valentin Aleksandrovich; YEFIMOV, L.A., inzh., retsenzent; SKORNYAKOV, V.B., kand.tekhn.nauk, red.; DUGINA, N.A., tekhn.red.

[Superpressure hydraulic presses] Gidropressovye ustanovki sverkhvysokikh davlenii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1958. 117 p. (MIRA 12:1)
(Hydraulic presses)

PHASE I BOOK EXPLOITATION SOV/3382

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Sverdlovskoye otdeleniye

Mekhanizatsiya i avtomatizatsiya mashinostroitel'nogo proizvodstva [illegible] ation and Automation in the Machine-Building Industry) [illegible] 1959. 519 p. 12,000 copies printed.

Ed.: Ye. V. Pal'kov, Doctor of Technical Sciences; Tech. [illegible] Editorial Board: P. P. Val'kov, Engineer, V. V. [illegible] Technical Sciences, Ye. V. Pal'kov, [illegible] Porokhikov, Candidate of Technical Sciences, [illegible] Technical Sciences, K. N. Sokolov, Candidate of [illegible] Sobolevskiy, Candidate of Technical Sciences, [illegible] B. K. [illegible], Candidate of Technical Sciences, and [illegible] sor.

PURPOSE: This book is intended for production engineers and [illegible] in industrial planning.

COVERAGE: The material presented in this book is said to [illegible] developed and tested in the machine-building plants [illegible] of Siberia. Listed are various methods of [illegible] and their applications in foundries, forging shops, [illegible] Other fields of use include welding, hoisting, [illegible] quality control on an industrial scale. [illegible] and instruments currently used in mechanization and automation of [illegible] dustrial processes are described and illustrated. The [illegible] said to have been produced by the plants using their own resources. The economic aspects of mechanization and automation are discussed. There are 454 Soviet references.

Card 6/15

SOV/137-58-11-22605

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 111 (USSR)

AUTHORS: Zemzin, V. N., Yefimov, L. A.

TITLE: Thermal Testing of Welded Joints Consisting of Different Steels (Teplovyye ispytaniya svarnykh soyedineniy raznorodnykh staley)

PERIODICAL: Tr. Leningr. politekhn. in-ta, 1957, Nr 189, pp 83-92

ABSTRACT: The tests were performed on two types of welded models (M) utilizing different metals. The M of a welded disk was composed of an external rim (400 mm in diameter) made of steel EI-405 (12Kh16N13MB) and a central portion made of steel EI-415 (22Kh3MVF). The welding was performed with KTI-15 electrodes (E) (4-5 mm in diameter) after the edges of the central portion were wetted with the E metal. The M of a steam pipe consisted of a central thick-walled pipe (240 x 34 mm in diameter) made of steel EI-257 (12Kh14N14MV2) with two pipes (217 x 21 mm in diameter) made of 15KhM steel attached to it on either side by means of V-groove butt welds; the edges of the 15KhM steel pipes were preliminarily wetted with the E metal of Tsu-2KhM electrodes, the coating of the latter containing an addition of FeV. Welding

Card 1/3

Thermal Testing of Welded Joints Consisting of Different Steels

operations were also performed with KTI-5 electrodes. The welding procedures were as follows: Heating of the disk to a temperature of 600°C over a period of 8-10 min, followed by cooling for 26-28 minutes; the steam pipe M was heated to a temperature of 670° in 10-12 min, the cooling time being 12-14 min. The heating of the models was accomplished by means of a HF generator with a capacity of 60 kva, while cooling was achieved by circulation of water. The disk was subjected to 180 heating-cooling cycles, the model of the steam pipe to 100 and 220 cycles. A simplified calculation of the stresses arising within the austenitic rim demonstrated that their magnitude is approximately four times that of the σ_s value of EI-415 steel. The results of the tests may, therefore, be applied to actual conditions of prolonged service. The nature of the residual stress distribution testifies to the stability of disk dimensions in the process of testing. No disruptions in continuity were observed either in the weld zone or in the parent metal. Steel EI-257 is sensitive to cyclic temperature loading. In the case of the steam-pipe model, cracks and small fissures were observed in areas at some distance from the weld zone. The nature and distribution of these cracks substantiate the assumption that there is no connection between the failures and the dissimilarity of metals employed in the welded connection. The high efficiency of welded connections involving austenitic and pearlitic steels was demonstrated in tests performed

Thermal Testing of Welded Joints Consisting of Different Steels

under more rigid conditions than those encountered in actual operation of power-generating installations. In order to evaluate the possibilities of employing similar weldments on an industrial scale, it is essential that shop tests be carried out on experimental subassemblies under realistic operational conditions.

V. M.

PETROV, G.L., kand.tekhn.nauk, dots.; YEFIMOV, L.A., inzh.

Selection of electrodes for welding thin elements of EI417(Kh23N18) steel. Energomashinostroenie 4 no. 6:25-27 Je '58. (MIRA 11:8)
(Electrodes)
(Steel--Welding)

35008

S/563/61/000/216/005/007
D215/D304

1.7500

AUTHORS: Petrov, G.L., and Yefimov, L.A.

TITLE: Formation of transition layers near the fusion boundary in welding carbon and low alloy steels with austenitic electrodes

SOURCE: Leningrad Politekhnicheskiy institut. Trudy, no. 216, Moscow, 1961. Svarochnoye proizvodstvo, 122 - 129

TEXT: Migration of carbon in composite steel welds during service at elevated temperatures was studied and followed closely the work of Christoffel and Curran. The three steel (parent metal) and four electrodes ЭФ-13 (EF-13), ЦТ-15 (TsT-15), КТИ-5 (KTI-5), Х20Н75 (Kh20N75) were used. High temperature ageing conditions were reckoned to give a decarburized zone about 0.5 mm wide in the Ст. 3 (St 3) steel and ranged from 120 hr. at 425°C to 66 hr. at 650°C. With St. 3 the first three electrodes gave similar zone widths (within the limits of measurement accuracy). Band width was about 0.5 - 0.8 mm after 66 hr. at 650°C. The Ni-Cr electrode gave a zone only 1/6 as wide but appeared to produce grain growth in the ferrite around

Card 1/2

Formation of transition layers ...

the weld. With 34XM (34KhM) steel base only a slight decarburized zone developed (0.08 - 0.1 mm) with all the electrodes, and with ЭИ-414 (EI-414) practically no band developed at all. Simultaneously with the decarburized zone in the ferrite there developed a carbide zone in the weld. With ЦТ-15 (TsT-15) weld metal on 34KhM steel the maximum microhardness close to the fusion line was 500 VPN, with a large zone; with KTI-5 electrodes the hardness was lower (380 VPN) and the zone narrower (about 0.20 mm). These electrodes on EI-415 showed the same trend, with reduced hardness (420 and 350 VPN) and narrower zone widths (about 0.04 mm with KTI-5). The Ni-Cr weld limited diffusion and formation of a decarburized layer in the ferrite and gave better impact properties across the fusion line with EI-415 than did KTI-5 weld metal. There are 9 figures, 3 tables and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: R. J. Christoffel and R.M. Curran, Welding Journal, no. 9, 1956.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute)

X

Card 2/2

S/563/61/000/216/006/007
D215/D304

AUTHOR: Yefimov, L.A.

TITLE: Calculating the composition of electrode coating mixers

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy, no. 216, Moscow, 1961. Svarochnoye proizvodstvo, 142 - 148

TEXT: The author presented a simplified method calculating electrode coating mix composition, based on the use of nomograms. The percentage of any element x in the deposited metal is compounded of contributions from the rod and from the coating, $x_{dm} = x'_{dm} + x''_{dm}$. Alternatively, $x_{dm} = x_r k' + x_c k'' \cdot \delta$, where x_r = % of element x in rod, k' - element transfer coefficient from rod to weld pool, x_c - % of element in coating, k" - element transfer coefficient from coating to melt, and δ - relative weight of coating. If k', k" and δ are known, nomograms may be plotted showing x'_{dm} as $f(x_r)$ and x''_{dm}

Card 1/2

as $f(x_c)$. Further nomograms are given, showing x_c as a function of % (ferro-x) for various percentages of x in the ferro-alloy, and the percentages of $CaCO_3$ and CaF_2 required at a given % of ferro-alloy. S is controlled through the external diameter

$$D = d\sqrt{\frac{\gamma_r \delta}{\gamma_c} + 1}\ , \qquad (4)$$

where d - rod diameter, δ - weight of coating/weight of rod, γ_c - specific gravity of coating, γ_r - specific gravity of rod. γ_c is calculated by the method of G.L. Petrov and S.Sh. Smolkin (Ref. 3: Svarochnoye proizvodstvo, no. 9, 1960) from the specific gravities and proportions of individual constituents. Nomograms were finally given showing $D = f(\delta)$ for various values of d and γ_c. There are 5 figures, 3 tables and 4 Soviet-bloc references.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute)

32996

S/137/62/000/005/129/150
A150/A101

1.2360

AUTHORS: Petrov, G. L., Yefimov, L. A.

TITLE: The formation of transitional layers near the boundary of fusion during the welding of carbon and low-alloyed steels with austenite electrodes

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 10, abstract 5E48 ("Tr. Leningr. politekhn. in-ta", 1961, no. 216, 122 - 129)

TEXT: Transitional structural layers which decrease the operational efficiency of joints will appear near the boundary of fusion in heterogeneous welded joints operating under increased temperature conditions for a long time. This is caused by the fact that a diffusion redistribution of C takes place near the boundary of fusion at temperatures at which a diffusion of C becomes apparent, and the carbides of strong carbide-forming agents become resistant. Three grades of steels, i,e. steel 3, 34 XM (34KhM) and ЭИ-415 (EI-415) steels were used as base metal to experimentally investigate the process of the diffusion of C through the boundary of fusion from a lower alloyed steel to a higher

Card 1/2

alloyed one. The welding was conducted with electrodes producing built-up metals of various compositions: ЭФ-13 (EF-13), ЦТ-15 (TsT-15), КТИ-15 (KTI-15), and Х 20 Н 75 (Kh20N75). The temperature and the holding time were set in accordance with a calculation for obtaining a decarbonization zone on the Ст.3 (St.3) steel of an adequate width (~0.5 mm). The following was revealed: 1) The heat time at 650, 525 and 425 C in heterogenous welded joints causes a migration of C from a carbon steel to a high-alloyed seam metal. The width of the decarbonized zone in the carbon steel linearly grows, in logarithmic coordinates, with an increase of the time of action of increased temperatures at every particular temperature and type of the built-up metal. 2) When building up the 34KhM and EI-415 steels which contain a considerable amount of carbide forming agents, the migration of C is insignificant and appears least during the welding of the EI-415 steel. 3) In comparison to electrodes yielding a built-up austenitic Cr-Ni metal, electrodes from Ni Kh20H75 alloy give better results regarding transitional layers in connection with migration of C near the boundary of fusion during the welding of carbon steels.

V. Tarisova

[Abstracter's note: Complete translation]

L 10517-65 EWT(m)/T/EWP(k)/EWP(b) Pf-4/Pad SSD(m)-3

ACCESSION NR: AT4038450 S/2563/63/000/229/0091/0095

AUTHOR: Yefimov, L. A. B

TITLE: Choice of electrodes for the welding of high-nickel alloy with austenitic chromium-nickel steels

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy*, no. 229, 1963. Svarochnoye proizvodstvo (Welding production), 91-95

TOPIC TAGS: welding, welding electrode, electrode diameter, welding current, alloy welding, nickel alloy, austenite steel, chromium nickel steel, stainless steel, stainless steel welding, hot fissure, steel EI-417, alloy EI-765

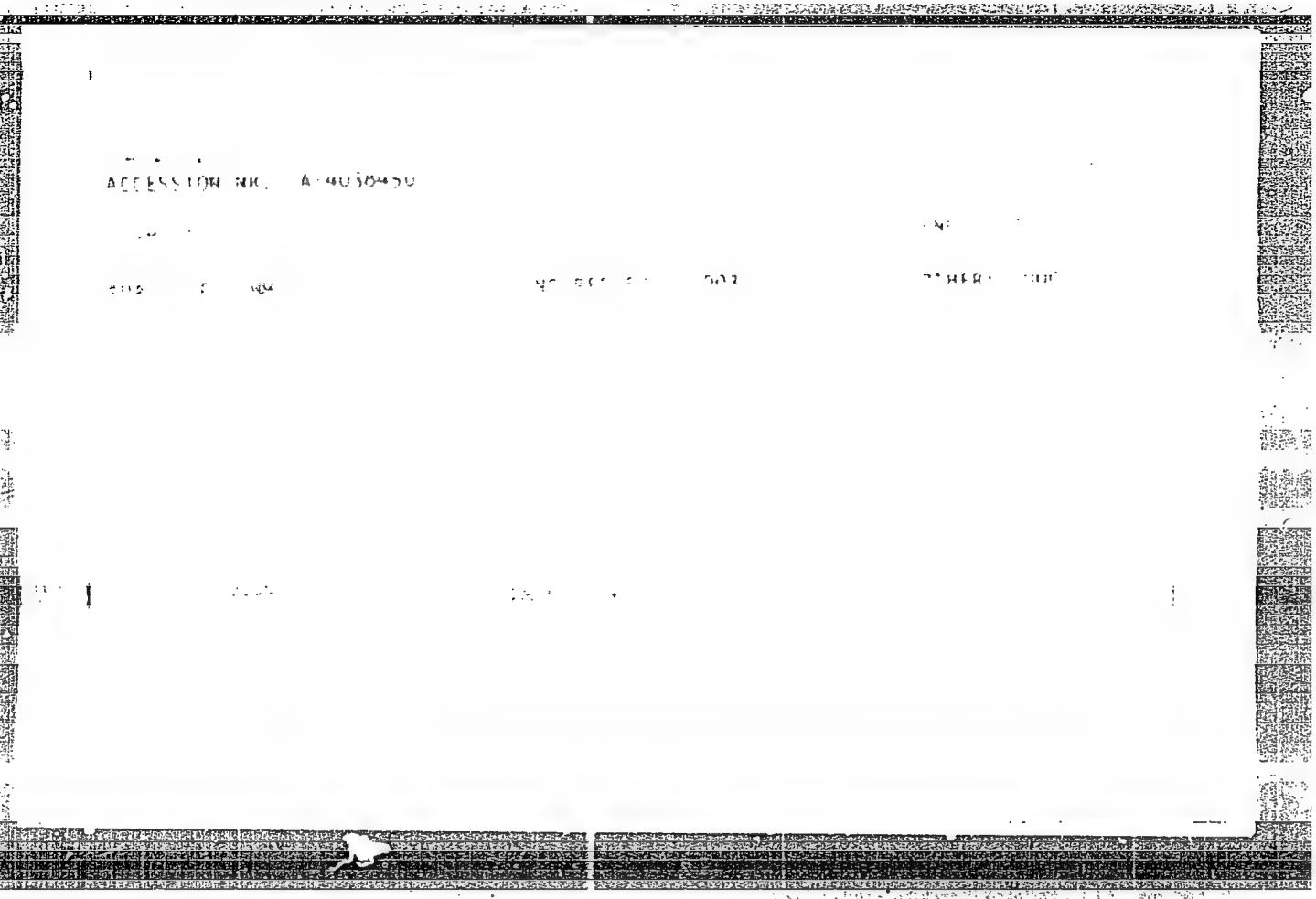
ABSTRACT: The greatest difficulties in the welding of pure austenitic steels to high-nickel alloys are caused by the formation of hot fissures as the metal of the weld cools, due to the low strength of such materials. When welding steel EI-417 [illegible] in mind that both components participate to some

Card 1/3

given of experiments designed to determine the effect of electrode diameter and welding current intensity on the degree of participation of filler and base metals in the metal of the weld. The author demonstrates that it is possible to obtain crack-free single-pass welds between the light sections of EI-417 austenitic steel and [illegible]

about 90 amperes, the degree to which the base metal participates in the metal of a fillet weld between sections with a thickness of 8-10 mm is approximately 50%. It was also found that hot fissures in the weld metal, when welding EI-417 steel with EI-765 alloy, can be eliminated by the use of electrodes which provide for a deposited metal of high chromium content (30-32%). In this case, the weld metal will have a composition of approximately 29% Cr and 21% Ni on an austenite base.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnical Institute)



YEFIMOV, L.A.

Selection of electrodes for the welding of a high-nickel alloy with austenitic chromium-nickel steels. Trudy LPI no.229:91-95 '63. (MIRA 17:9)

YEFIMOV, L.A.; FILIMONOV, G.Ya.

Selection of electrodes for the arc welding of thin dissimilar steels.
Trudy LPI no.229:96-100 '63. (MIRA 17:9)

L 1359-66 EWI(m)/EWP(t)/ EWP(k)/EWP(b)/EWA(h)/EWA(c) JD/HW
ACCESSION NR: AP5024359 UR/0286/65/000/015/0024/0024
621.984.2

36
B

AUTHOR: Yefimov, L. A.; Sysoyev, P. M.; Pylaykin, P. A.; Shtin, L. M.; Khirdzhiyev, S. G. 44,55

TITLE: A multilayer container for the extrusion process. Class 7, No. 173195

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 24

TOPIC TAGS: metal extrusion, metallurgic process

ABSTRACT: This Author's Certificate introduces a multilayer container for the extrusion process. The device is built up from several hoops fitted concentrically one over the other. To economize on costly steels and lighten the container, spacers are placed between two or several pairs of hoops. These spacers are made in the form of hoops which are cut away in one or several places along the generatrix.

ASSOCIATION: none
SUBMITTED: 27Mar64
NO REF SOV: 000
ENCL: 01
OTHER: 000
SUB CODE: IE, MM

Card 1/2

L 1359-66

ACCESSION NR: AP5024359

ENCLOSURE: 01

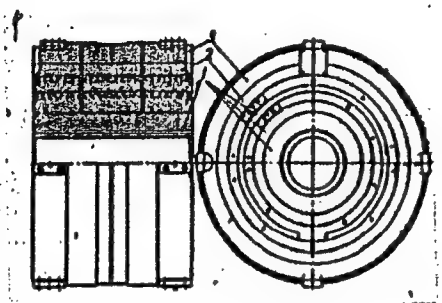


Fig. 1. 1--hoops; 2--spacer; 3--outside hoop

Card 2/2

YEFIMOV, L. D.

YEFIMOV, L. D. - "Theoretical and experimental investigation of a conveyor with link scrapers and its use in railroad transport". Moscow, 1955. Min Railways USSR, Moscow Order of Lenin and Order of Labor Red Banner Inst Degree of Candidate of Technical Science).

SO: Knizhnaya Letopis' No. 46, 12 November 1955. Moscow

YEFIMOV, L.D., kand.tekhn.nauk

Theory of conveyers with low covered scrapers. Trudy TEIIZHT 25:279-298 '58. (MIRA 13:10)

(Conveying machinery)

YEFIMOV, L.D.; ZYABLITSEV, V.Ya.

Electrified self-dumping car. Trudy CMIIT 38:111-116 '62.
(MIRA 18:8)

YEFIMOV, L.D.

Effect of vibratory systems on the stability of dump cars during unloading. Trudy OMIIT 43 pt.2:187-192 '63.

(MIRA 18:10)

GAYLIS, V.V.; YEFIMOV, L.F.

Mechanism for preventing short-circuiting of electric motors with phase-wound rotors when they are started with the rheostat in "Run" position. Azerb. neft. khoz. 39 no.10:45-46 O '60. (MIRA 13:11)
(Electric motors, Alternating current)

USSR

Polarographic reduction of [illegible] 1,3-dibromobutane—[illegible] vinyl chloride. A. V. [illegible] Zapiski Odesskogo [illegible] No. 21, 91-9; *Referat. Zhur.*, [illegible] reduction of dibromo[illegible] (I) and [illegible] ethylene (II) formed during [illegible]

vinyl chloride (IV) with [illegible] with NaBr was studied at a [illegible] II were reduced polarographically [illegible] v_1, resp., regardless of the [illegible] coeff. α in $E = E_{1/2} - (0.05/\alpha)\log$ [illegible] and for II 0.34; thus, the reduction [illegible] state. A mixt. of I and II [illegible] could be analyzed polarographically. [illegible] stated of nbsp; the excess Br with a [illegible] polarographically. The max. was depressed by an addn. of 0.02% gelatin. In nik. sola. II was hydrolyzed noticeably. [illegible] Hosch

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001962330003-4"

SOV/81-59-13-48338

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 13, p 575 (USSR)

AUTHORS: Moryganov, B.N., Yefimov, L.I., Lyubimova, V.V.

TITLE: The Effect of Esters of α-Oxyacids on the Polymerization Rate of Methyl and Butyl Ethers of Methacrylic Acid

PERIODICAL: Tr. po khimii i khim. tekhnol., 1958, Nr 2, pp 368 - 372

ABSTRACT: The kinetics of the decomposition of benzoyl peroxide in butyl ethers of the α-oxyisobutyric and lactic acids has been studied at 79, 99 and 116°C. A weak inhibiting effect of the mentioned esters on the rate of polymerization of the ethyl and butyl ethers of methacrylic acid has been shown by the dilatometric method (designs of dilatometers are cited).

M. Leonov

Card 1/1

YEFIMOV, L.I.; TENNIS, I.O., vedushchiy redaktor; TROFIMOV, A.V., tekhnicheskiy redaktor

[The operator of refineries deriving gasoline form natural gases] Operator gazobenzinovogo zavoda. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1952. 141 p. [Microfilm]
(Gasoline) (Gas, Natural) (MLRA 7:10)

YEFIMOV, L.I.; ZAREMBO, K.S.

Use of electric tensiometers in studying underground gas pipelines. (MLRA 9:1)
Trudy VNII no.5:201-204 '54.
(Gas, Natural--Pipelines) (Tensiometers)

Yefimov, L I

YEFIMOV, L.I.; KHALIF, A.L.

Hydrocarbon adsorption by the descending bed of activated charcoal particles. Trudy VNIIGAZ no.1:17-26 '57. (MIRA 11:1)
(Adsorption) (Hydrocarbons)

YEFIMOV, L.I.; KOROLENKO, T.P.; KHALIF, A.L.; ESTRIN, V.N.

Adsorption of heavier hydrocarbons from natural gases by means of free-falling particles of activated carbon. Trudy VNIIGAZ no.6:137-148 '59. (MIRA 12:10)
(Hydrocarbons) (Carbon, Activated)

KHALIF, A.L.; YEFIMOV, L.I.

Mass transfer coefficients during adsorption by a fixed-bed and by free-falling particles of the adsorbent. Trudy VNIIGAZ no.6: 149-153 '59. (MIRA 12:10)
(Gases) (Adsorption) (Mass transfer)

S/081/60/000/017/014/016
A006/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 17, p. 611, # 72075

AUTHOR: Yefimov, L.I.

TITLE: The Use of the Infrared Spectroscopical Method for the Investigation of the Polymerization of Methylmethacrylate at Deep Transformation Stages

PERIODICAL: Tr. po khimii i khim. tekhnol., 1960, No. 1, pp. 167-172

TEXT: Kinetics of monomer exhaustion during the polymerization of methylmethacrylate (I) at 85, 105, 125 and 145°C, was studied by changes in the optical density of the absorption band of a double bond C = C with a frequency of 1,630 cm^{-1}. The calibration curve for determining the concentration of I was plotted according to polymethylmethacrylate standards, in which the content of the residual monomer was polarographically determined. Polymerization was performed directly in a vessel placed in a heater, located directly before the inlet slit of the ИКС -11 (IKS-11) infrared spectrometer. Furthermore, the author investigated films obtained by polymerization of I according to given conditions in glass forms

Card 1/2

S/081/60/000/017/014/016
A006/A001

The Use of the Infrared Spectroscopical Method for the Investigation of the Polymerization of Methylmethacrylate at Deep Transformation Stages

at the same temperatures. The minimum concentration of the monomer in the polymer to be determined was 0.1%. The dependence of the extremal concentration of the residual monomer on the temperature within the 313-413°K temperature range is described by the empirical equation $C = (10^3/2.455\ T)^{12.5}$. The dependence of extremal concentration of a residual monomer on the temperature is explained by changes in the viscosity of the system.

V. Zharkov

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

GERASIMOV, V.G.; YEFIMOV, L.I., inzh.; KEL'TSEV, V.V., kand.tekhn.nauk; MAKAROV, K.M., inzh.; PODKOPAYEV, V.F., inzh.

Steam conversion of natural gas in a water gas producer. Masl.-zhir. prom. 27 no.9:31-34 S '61. (MIRA 14:11)

1. Moskovskiy gidrozavod (for Gerasimov). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo gaza (for Yefimov, Kel'tsev, Makarov, Podkopayev).
(Gas, Natural) (Gas producers)

LAPITSKAYA, S.K.; YEFIMOV, L.I.; ALESKOVSKIY, V.B.

Polarographic study of the behavior of hydroquinone in methacrylic acid. Izv.vys.ucheb.zav.;khim.i khim.tekh. 6 no.1:133-136 '63. (MIRA 16:6)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta, kafedra analiticheskoy khimii.
(Hydroquinone) (Polarography) (Methacrylic acid)

ACCESSION NR: AP4018165 S/0191/64/000/003/0038/0040

AUTHORS: Frolova, M.I.; Yefimov, L.I.; Chekmodeyeva, I.V.

TITLE: Aging of polymethylmethacrylate organic glass under the influence of radiation by erythematous lamps.

SOURCE: Plasticheskiye massy*, no.3, 1964, 38-40

TOPIC TAGS: Polymethylmethacrylate, plasticized polymethylmethacrylate, unplasticized polymethylmethacrylate, extinction coefficient, transmission coeffecient, tensile strength, impact strength

ABSTRACT : The coefficient of extinction of unplasticized polymethylmethacrylate, (PMMA), organic glasses in the ultraviolet spectral range increases during the first 200 hours of irradiation with erythematous lamps, after which it decreases slowly. In plasticized PMMA organic glasses the coefficient of transmission after 200 hours irradiation by 300 millimicron waves becomes so small that the glass can be considered opaque. The tensile strength and the specific impact strength of dibutylphthalate plasticized PMMA is greatly re-

Card 1/2

ACCESSION NR: AP4018165

duced under the influence of radiation of erythematous lamps, while the changes in these properties are insignificant in unplasticized glass. "O.A. Babayeva participated in the experimental part of the work." Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 27Mar64 ENCL: 00

SUB CODE: CH NR REF SOV: 005 OTHER: 001

Card 2/2

ACC NR: AR6004376 SOURCE CODE: UR/0081/65/000/015/S031/S031

AUTHOR: Frolova, M.I.; Yefimov, L.I.; Ryabov, A.V.

ORG: none

TITLE: Polymethymethacrylate aging under light. III. Study of decay under light using ultraviolet and infrared spectra

SOURCE: Ref. zh. Khimiya, Abs. 15S190

REF SOURCE: Tr. po khimii i khim. tekhnol. Gor'kiy, vyp. 2(10), 1964, 304-310

TOPIC TAGS: polymethylmethacrylate, light aging, IR spectrum, UV spectrum, benzoyl peroxide, vacuum chamber

TRANSLATION: Samples of polymethylmethacrylate (PMMA) obtained by block polymerization in a vacuum and under atmospheric conditions in the presence of benzoyl peroxide, azoizobutyric acid dinitrile, or by means of photoinitiation, were investigated. The presence of bathochrome displacement of UV absorption and the presence of a new maximum absorption in PMMA were disclosed. This indicates the formation of new groups. Using IR spectrometry, the assumption of formation of isolated conjugate double bonds was confirmed. Oxygen does not noticeably affect the character of the spectra of irradiated PMMA samples. A method of photo decomposition of PMMA in a vacuum was suggested. See report 2, R.Zh. Khim., 1962, 1R43. V. Agasandyan.

SUB CODE: 07

Card 1/1